



ResilientWoodsHole Adaptation Pathways

March 24, 2022

Purpose: Develop phased strategies to increase the coastal resilience of Woods Hole over the short-, mid-, and long-term

Adaptation Themes: Maintain Character
Nature-based Focus
Protect/Connect
Adaptive Realignment

Maintain Character

Goal: Preserve the existing uses, historic character and community resources

Strategy: Leverage moderate and incremental strategies to steward the campus within a village identity

Representative Actions:

- wet floodproofing
- dry floodproofing
- site protection
- building systems protection
- moderate seawall/bulkhead elevation

Nature-based Focus

Goal: Use nature-based solutions to enhance resiliency and ecosystem services

Strategy: Where feasible, extend the effectiveness and potential longevity of coastal green infrastructure and open space by facilitating the preservation, restoration, and migration of natural resource systems

Representative Actions:

- salt marsh migration/restoration
- beach/dune nourishment
- living shorelines
- living breakwaters/reefs



Protect/Connect

Goal: Emphasize protection and maintenance of existing infrastructure and ensure vital connectivity

Strategy: Use hard and/or hybrid infrastructure solutions to reduce exposure of important features (municipal infrastructure, waterfront scientific assets, businesses and the residential community) and preserve critical accessways (within Woods Hole and to the waterfront)

Representative Actions:

- seawalls
- bulkheads
- flood walls
- landscaped berms and terracing
- elevation of land/roads/buildings/infrastructure
- dry floodproofing
- wave attenuation features
- deployable flood barriers

Adaptive Realignment

Goal: Reimagine Woods Hole through the lens of living with water

Strategy: Where existing uses and configurations cannot reasonably continue (increasing cost/risk from daily tides or common storms), develop a multi-phased plan to accommodate water with lateral or vertical relocation based on shared understanding of risk tolerance

Representative Actions:

- wet floodproofing
- strategic elevation/relocation of buildings/infrastructure
- floating structures
- usage swapping
- undevelopment (retreat/buyout) for resilient open space